Appendix H
Management Constraints from the Fire / Fuels Management Plan Environmental Assessment / Plan Amendment for Montana and the Dakotas

The following management constraints are taken from section 2.5.1.1 and 2.5.3.1 of the Fire/Fuels Management Environmental Assessment Plan Amendment for Lewistown and the Dakotas (2003).

2.5.1.1 Protection measures common to both alternatives: These protection measures are based on existing policy, direction, law, and regulation. They are described here to emphasize the portions of policy that are relevant to this proposed action.

1. Air Quality: Prescribed fire will conform with the provisions of state regulations and implementation plans as specified in BLM manual section 9210-Fire Planning and (in Lewistown) the Lewistown Airshed Group Operating Guide
2. Cultural: Prior to implementing fire projects, the BLM will do an appropriate level of Native American consultation according to the guidance in BLM Manual 8160 and Handbook H-8160-1 to identify potential religious or cultural concerns.
3. Cultural: If Native American human remains are discovered on public lands during fire suppression, rehabilitation, or fuels reduction activities, the BLM will follow procedures identified in the Native American Graves Protection and Repatriation Act (NAGPRA) and 43 CFR part 10. If BLM fire suppression or reclamation activities extend onto private or state land, and burials are discovered, the provisions of the appropriate state burial law will be followed.
4. Cultural: The protective measures that guide the placement of dozer lines and other surface disturbing fire-related activities will be followed unless the authorized officer determines that due to adverse fire behavior, implementation of a particular measure is not feasible and prudent. In those cases, the measure may be waived or modified to address crucial safety issues, i.e., imminent threats to life and/or property. The SHPO will be notified if such measures are waived or modified in accordance with existing agreements or 36 CFR 800. Also, unless critical safety issues prevent a cultural resource inventory from being conducted, the provisions regarding post-fire cultural resource inventory cannot be waived or modified. If inventory is waived or modified by the authorized officer the SHPO will be consulted consistent with existing agreements or 36 CFR 800.
5. Special Status Species (SSS): Under BLM Special Status Species policy (BLM Manual 6840), BLM shall ensure that actions authorized, funded, or carried out by the BLM do not contribute to the need for listing a candidate or BLM sensitive species under the Endangered Species Act.
6. Threatened and Endangered Species: Areas of occupied and/or suitable habitat, important for species expansion and recovery, would be protected from adverse effects resulting from fire/fuels management related activities
7. Wilderness and Wilderness Study Areas (WSAs): Activities in wilderness areas and WSAs, including all fuels management activities, must not impair wilderness values. Inclusion of a WSA in a polygon does not automatically enable all types of treatments and prescribed burning associated with the category to be completed within the WSA. Treatment will not impair, and will in fact enhance, wilderness values. Minimum Tool and Minimum Requirement concepts must be reviewed
8. Visual: In order to ensure that the objectives of each visual resource management class is met, contrast ratings are required for all major projects (prescribed burning, mechanical and chemical pre-treatments) on public lands that fall within VRM Classes I and II, and Class III areas which have high sensitivity levels. Actions must not exceed the VRM objectives established for the management class.

2.5.3.1 Direction for fire management (including both fire suppression and fuels management) to protect other resource values: The following direction would be used when developing and updating field office fire management plans, when responding to wildland fires, and when developing site-specific fuels projects. This direction would not be mandatory during wildland fire suppression if using it would compromise protection of life or property.

9. Aquatic Species (including Special Status Species) and Habitat–

Fuels Management

- To provide additional protection of aquatic species beyond Streamside Management Zone (SMZ) boundaries, **Riparian Protection Zones** (RPZs) would be identified to protect the following specific key ecological functions:
  - **water quality**, to a degree that provides for stable and productive riparian and aquatic ecosystems;
  - **stream channel integrity**, channel processes, and the sediment regime (including the elements of timing, volume, and character of sediment input and transport) under which the riparian and aquatic ecosystems developed;
  - **instream flows** to support healthy riparian and aquatic habitats, the stability and effective function of stream channels, and the ability to route flood discharges;

  - **natural timing and variability** of the water table elevation in meadows and wetlands.
  - **diversity and productivity** of native and desired non-native plant communities in riparian zones.
- The width necessary to protect stream and riparian area structure and function should be determined from watershed and site-specific analysis. Interim RPZ boundaries described below should be considered default boundaries until final boundaries are determined by watershed or site-specific analysis. Final RPZ boundaries may be narrower or wider, depending on local conditions and results of the project specific analysis.
- Interim RPZ boundaries within forested zones would be:
  - Streams, ponds, lakes containing Special Status Fish Species: two site-potential tree heights
  - Other fish-bearing streams: one site-potential tree height
  - Ponds, lakes, and wetlands greater than 1 acre: the RPZ consists of the body of water or wetland and the area to the outer edges of the riparian vegetation, or to the extent of the seasonally saturated soil, or to the extent of moderately and highly unstable areas, or to a distance equal to one site-potential tree height (whichever is greatest)
- Interim RPZ boundaries for non-forested rangeland ecosystems would consist of the body of water or wetland and the area to the outer edges of the riparian vegetation, or to the extent of the seasonally saturated soil, or to the extent of moderately and highly unstable areas, or (in segments where trees are present) to a distance equal to one site-potential tree height (whichever is greatest).
- Fuels treatments could occur within these RPZs; however, riparian values would receive primary management emphasis during fuels treatments.
- All proposed fuels treatments within RPZs should analyze particular risk from wildfire and fuels management projects to isolated, depressed populations in degraded habitats without access to local or regional refugia. Proposed treatments should incorporate specific design features to avoid any further degradation of habitat.
- If RPZ boundaries are narrower than SMZ boundaries, fuels treatments would still comply with applicable state laws and Water Quality/Forestry Best Management Practices that BLM has adopted.

The following **conservation measures** would be applied to protect Threatened and Endangered fishes:

10. Pallid Sturgeon (Endangered)
    - No aerial retardant should be applied within 300 feet of the Yellowstone River below the mouth of the Powder River or within 300 feet of the Upper Missouri River (above Fort Peck Dam).
    - Restrict livestock grazing of riparian vegetation, especially cottonwood stands along the Upper Missouri River (above Fort Peck Dam), and Yellowstone River below the mouth of the Powder River, where that vegetation has been recently affected by fire or other catastrophic events (blowdown, ice shear, flood etc.) until successful regeneration of vegetative components occurs.

11. Bull Trout (Threatened)
    - Projects shall be designed using the guidance set forth in the "Interim Bull Trout Habitat Conservation Strategy."

Cultural and Paleontological Guidance
Fire Suppression

12. The appropriate BLM archaeologist, paleontologist, or cultural resource program lead would recommend the following guidance for each fire as appropriate:
13. Fire suppression tactics would limit surface disturbance to protect cultural resource values in designated cultural Areas of Critical Environmental Concern (ACEC), archeological districts, and other areas known or suspected to contain cultural resources, including historic structures and features. Use of earth moving/tillage equipment should be avoided for wildland fire suppression in areas with special designations to protect cultural resources and values, archeological districts, and other areas known to possess cultural resources. The use of heavy equipment and off-road vehicles should be limited to existing roads and trails within these areas during rehabilitation.
14. The aerial application of fire retardant would be restricted over areas that contain petroglyphs and pictographs.
15. Fire camps and fire staging areas should be placed outside and sufficiently distant from known or identified cultural resources. Use of off-road motorized vehicles outside of fire camp and staging areas should be avoided to prevent inadvertent impacts to cultural resources.
16. An intensive cultural resource inventory (Class III) as described in BLM Manual 8110 should be completed on areas disturbed by suppression

activities, e.g., fire lines, fire camp areas, and staging areas before starting rehabilitation. Cultural resources discovered in or near disturbed areas should be protected from further damage during rehabilitation. Where cultural resources have been disturbed by suppression activities stabilization work may be implemented. This may entail a careful return of the berm over the site, seeding, or covering the site with protective mesh and culturally sterile material. These emergency actions should be considered on a case-by-case basis at the discretion of the archaeologist assigned to the fire. Consultation with the SHPO would be done in accordance with existing agreements or 36 CFR 800.

17. A BLM resource advisor and, if feasible, an archaeologist, would be on site during suppression and rehabilitation activities to give guidance and ensure compliance with the guidelines and decisions established to protect cultural resource values. Guidelines should include prohibitions against the collection of artifactual materials from archaeological and historical resources.
18. The archaeologist assigned to the fire would work with the rehabilitation team to ensure that cultural resources, including historic structures and features, are considered during fire suppression restoration actions. Site treatment plans would be prepared for historic properties that have been damaged by fire suppression and require more detailed stabilization efforts. These treatment plans would protect the site from secondary effects of the fire and fire suppression activities.
19. Monitoring of sensitive site areas would be conducted when fire suppression rehabilitation plans are within close proximity to historic properties, or could have an indirect effect on an existing resource.
20. If stabilization/protective measures were employed for cultural resources a report summarizing those actions should be submitted to an appropriate SHPO. The report should include a description of the fire impacts, fire suppression and rehabilitation, and salvage activities. It should also include the number and types of sites affected and stabilized.
21. In accordance with the existing agreements or 36 CFR 800, the SHPO would be notified of a fire emergency and the suppression efforts associated with the emergency. Adjustments to these procedures may be made in response to comments from consulting parties; e.g. the SHPO, either programmatically through existing agreements or on a case-by-case basis where no agreement exists.
22. Surface disturbance should be limited within designated ACECs and formations known to contain significant fossil resources to protect paleontological values. In these areas with designated paleontological resources, the use of heavy equipment and off-road vehicles would be limited to existing roads and trails during rehabilitation.
23. Fire camps and fire staging areas should be placed outside and sufficiently distant from known or identified fossil localities. Use of motorized vehicles outside of fire camp and staging areas in known fossil producing formations should be avoided to prevent inadvertent impacts to fossil resources.
24. Significant fossils that are exposed by suppression activities or would be damaged by rehabilitation work should be recovered by a qualified Paleontologist.

Cultural and Paleontological Guidance
Fuels Management

25. Develop protocol with ND and SD SHPOs similar to that described in IM MT No. 99-032 for Lewistown. This would allow for a sample inventory instead of a Class III intensive survey of an entire target area. Until that protocol is developed, prescribed fire projects in ND or SD would require consultation with the appropriate SHPOs to develop a prescribed fire survey and protection strategy. The inventory strategies developed for these two states should be similar to guidance provided in IM no. MT-99-032.
26. If a class III inventory is used instead of the sample inventory described in IM No. MT 99-032, no additional consultation with SHPO would be required.
27. Where known fossil resources are suspected but unknown and where the area cannot be avoided the following measures would be employed: 1. Conduct an inventory to identify the presence or absence of fossil resources employing a qualified paleontologist, 2. in areas where fossil resources are suspected or have been identified avoid using surface disturbing motorized vehicles, heavy equipment, or hand tools, and 3. advise fire personnel and others to refrain from collecting fossils on public lands.

28. To the extent possible during fuels treatment planning, use a qualified paleontologist to assess the risk of damages and to recommend ways to minimize damage to fossil resources resulting from implementation of the plan.

Terrestrial Wildlife Species (including Special Status Species) and Habitat Direction common to both Wildland Fire Management and Fuels Management
The following **conservation measures** would be applied to protect Threatened and Endangered terrestrial wildlife species:

29. Interior Least Tern (Endangered)
    - No human disturbance within 1/4 mile of least tern nest site from May 15 to August 15;
    - No prescribed burning activities within 1 mile upwind of least tern nest sites.
    - No helicopter/aircraft activity or aerial retardant application within ½ mile of least tern nest sites between May 15 and August 15;
    - No prescribed burning activities within 1 mile upwind of nest sites between May 15 and August 15.

30. Whooping Crane (Endangered)
    - No human disturbance within ½ mile of occupied whooping crane habitat or potential habitat where whooping cranes have been identified within the past three years from April 1 to August 31
    - No helicopter/aircraft activity or aerial retardant application within ½ mile of occupied whooping crane habitat or potential habitat where whooping cranes have been identified within the past three years from April 1 to August 31.

31. Black-footed Ferret (Endangered)
    - No heavy equipment operation off of existing roads within 1/4 mile of prairie dog towns with documented occurrence of black-footed ferret
    - No aerial retardant application within 1/4 mile of prairie dog towns with documented occurrence of black-footed ferret
    - No surface disturbance (fire line construction) should occur in prairie dog towns with documented occurrence of black-footed ferret.

32. Gray Wolf (Endangered)
    - No human disturbance or associated activities within 1 mile of a den or rendezvous site from April 15 to June 30.

33. Bald Eagle (Threatened)
    - No human disturbance within ½ mile of bald eagle nests from February 1 through August 15;
    - No human disturbance within 1/4 mile of a winter roost from November 1 through March 1 or, if within 1/4 mile, activity should be restricted to a period of 9 am to 3 pm;
    - No helicopter/aircraft activity or aerial retardant application within ½ mile of known bald eagle nest sites from January 1 through August 15; or within 1/4 mile of a winter roost from November 1 through March 1;
    - No prescribed burning activities within 1 mile upwind of nest sites from January 1 through August 15; or within 1 mile upwind of a winter roost between November 1 and March 1.

34. Piping Plover (Threatened)
    - No human disturbance within 1/4 mile of any occupied nest sites from April 1 to July 31
    - No prescribed burning within one mile upwind of any occupied nest sites from April 1 to July 31 ;
    - No helicopter/aircraft activity or aerial retardant application within ½ mile of piping plover nest sites between April 15 and July 31.

35. Canada Lynx (Threatened)
    - Activities shall not cause a greater than 30% temporary loss or 15% permanent loss of suitable habitat in a decade. In addition, 10% of the Lynx Assessment Unit (LAU) shall remain in denning habitat in patches larger than five acres;
    - Processes used to reduce fuel levels, prepare sites for planting or for reintroduction of fire shall preserve the majority of large standing dead trees and large woody debris (denning habitat);
    - Precommercial thinning or introduction of fire into lynx habitat shall only occur when the forest stand no longer provides snowshoe hare habitat. This occurs when self-pruning processes have eliminated snowshoe hare cover and forage availability.
    - Following disturbance such as blowdown, fire, insects, and disease that could contribute to lynx habitat, do not salvage harvest when the affected area is smaller than 5 acres (exceptions would include areas such as developed campgrounds). Where larger areas are affected, retain a minimum of 10% of the affected area per LAU in patches of at least 5 acres;
    - Design burn prescriptions to create snowshoe hare habitat (e.g. regeneration of aspen and lodgepole pine);

- Minimize construction of temporary roads, firebreaks, machine lines, etc. on ridges, saddles, or areas that would create permanent travel ways that could facilitate increased access by competitors (e.g. coyote, bobcat);
- Restrict livestock grazing of fire created openings, aspen stands, willow carrs, and other potential lynx habitat until successful regeneration of shrub and tree components occurs.

36. Grizzly Bear (Threatened)
    - Within the Recovery Zone, as defined in the Grizzly Bear Recovery Plan (USFWS 1993), any off-road vehicular travel or vehicular travel on restricted roads shall adhere to access standards/direction as provided in local or regional interagency agreements, Biological Opinions, or local Land Use Plans;
    - All activities requiring overnight stays or establishment of a base camp shall be limited to fewer than 20 individuals and less than 5 days duration within the Recovery Zone (defined in Grizzly Bear Recover Plan (USFWS 1993));
    - Firewood collection within the Recovery Zone (defined in Grizzly Bear Recovery Plan (USFWS 1993)) shall be limited to roadside hazard tree removal, road maintenance, or campground maintenance activities;
    - Activities within the Recovery Zone (defined in Grizzly Bear Recover Plan (USFWS 1993)) in Riparian, Meadows, and Stream Corridors including restoration and improvement projects must not occur between April 1 and July 1 or must be completed in one day;
    - Within the Recovery Zone (defined in Grizzly Bear Recover Plan (USFWS 1993)) projects that would significantly change the vegetative community should not be implemented in huckleberry producing sites;
    - In order to minimize the potential for habituation or human conflict, activities within the Recovery Zone (defined in Grizzly Bear Recover Plan (USFWS 1993)) will adhere to Interagency Grizzly Bear Guidelines or local interagency grizzly bear standards for sanitation measures or storage of potential attractants;
    - Within the Recovery Zone (defined in Grizzly Bear Recover Plan (USFWS 1993)) activities will not involve planting or seeding of highly palatable forage species near roads or facilities used by humans.

37. Mountain Plover (Proposed)
    - No human disturbance within 1/4 mile of occupied mountain plover nest sites from April 1 to July 31;
    - No helicopter/aircraft activity or aerial retardant application within ½ mile of occupied mountain plover nest sites;
    - No prescribed burning within 1 mile upwind of any occupied mountain plover nest sites from April 1 to July 31.

Vegetation Direction
Wildland Fire Suppression
The following **conservation measures** would be applied to protect Threatened plant species:

38. Western Prairie Fringed Orchid, Water Howellia, Ute Ladies'-tresses (Threatened)
    - All proposed action areas within potential habitat shall be surveyed by a botanically qualified biologist, botanist, or ecologist to determine the presence/absence of the species;
    - No action that would potentially affect the species will be taken within suitable habitat if surveys are not completed to determine the presence or absence of the species;
    - Areas of occupied habitat within a proposed project area will have a "site specific" no activity buffer established by a qualified botanist, biologist, or ecologist, to protect occupied habitat;
    - Best Management Practices should be applied to protect the area from invasive plant species;
    - Non-native species should not be used in revegetation of suitable habitat.

Visual Direction
Wildland Fire Suppression

39. The use of heavy equipment and retardant for wildland fire suppression should be avoided in designated VRM Class I and Class II areas unless the impact of the fire would more severely impact the VRM values than the impact of equipment and retardant.
40. Fire rehabilitation of VRM Class I and II areas should be coordinated with a VRM specialist.
41. Fuels management projects should be coordinated with a VRM specialist.